

REMARKS

Claims 1-48 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the remarks herein.

Pending claims 1 through 19 have been cancelled without prejudice.

REJECTION UNDER 35 U.S.C. § 103

Claims 20-48 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Acker (U.S. Pat. No. 5,729,129) in view of Ferre et al (U.S. Pat. No. 5,873,822). This rejection is respectfully traversed.

With regard to the prior art, the localization system in Acker requires the use of three coils (10a, 10b, 10c) mounted in a fixed position in the frame of reference of a patient receiving bed 12, where the coils are external to the patient's body (Column 5 lines 15-18). The localization system in Ackers obtains a registration of a catheter 16 relative to the patient where "during actuation of the three units 10a, 10b, and 10c...the system proceeds to calculate the position and orientation of sensor 18, and hence the position and orientation of probe 14 and the associated tip" of the catheter 16. Thus Acker teaches transmitting signals between a reference location (external to the patient) and the catheter tip 16 in the patient, for determining the position of the catheter tip relative to the patient.

In Ferre et al, the medical instrument 16 and catheter 50 are connected, and the position detection unit monitors the position of the medical instrument 16 with respect to the reference unit 36 (column 5, lines 46-49). The reference unit 36 is external to the patient, as shown in Fig. 1, and determines the position of the medical instrument relative to the patient using the reference 36 that is external to the patient's body.

With regard to independent claims 20, 24, 35 and 40, these claims all require a medical device to be positioned within the body of a patient and to receive signals transmitted from a reference catheter that is also positioned within the body of a patient, for determining the position of the medical device relative to the catheter.

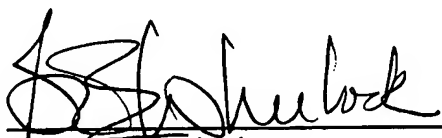
Specifically, the claimed reference catheter transmits signals to a reference device of a known position external to the patient's body for determining the position of the reference catheter relative to the reference device (as in the prior art). However, the above independent claims also require the catheter within the patient's body to transmit signals to a medical device within the patient's body, for determining the location of the medical device relative to the catheter. Paragraph 15 of the specification indicates that this method eliminates the interference from moving metal, since "the separation between the catheter transmitter and receiver is small compared to the distance between the transmitter and the metal". Thus, once the catheter location has been determined relative to the external reference device, the location of the medical device may be ascertained relative to the catheter without interference from metal objects. Neither Ackers or Ferre teach or suggest transmitting signals from a catheter within a patient to a medical device within a patient for determining the location of the medical device relative to the catheter. Obviousness cannot be established by combining references without also providing evidence of the motivating force which would impel one skilled in the art to do what the applicants have done. *MPEP 2144* Applicants submit it would also not have been an obvious design choice to transmit signals from a reference catheter within the patient to the medical device within the patient, for determining the location of the medical device without interference from moving metal objects. As such, independent claims 20, 24, 35 and 40 are not obvious in view of Ferre.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed for at least the reasons stated above. Applicant therefore respectfully requests that the Examiner reconsider and withdraw the presently outstanding rejections of claims 20 - 48. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (314) 726-7500.

Respectfully submitted,

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